WHAT IS CLAIMED IS:

1. A camera control system comprising:

a plurality of camera controllers each having the capability of controlling a pick-up direction of a video camera connected to said plurality of camera controllers via a network, each said camera contriller including:

pick-up direction designating means for designating a change to be made in the pick-up direction of said video camera; and

pick-up direction displaying means for displaying information about the current pick-up direction of said video camera; and

a server including:

control means for controlling the pick-up direction of said video camera in accordance with the designation of the change in the pick-up direction of said video camera given by any of said plurality of camera controllers; and

transmission means for transmitting the information about the current pick-up direction of said video camera, which direction is controlled by said control means in accordance with the designation of the change in the pick-up direction of said video camera, not only to the camera controller which has issued the

designation of said change in the pick-up direction of said video camera but also to the other camera controllers.

2. A camera control system according to Claim 1, wherein each said camera controller further comprises range displaying means for displaying information about an allowed range within which the pick-up direction of said video camera can be tilted and/or panned.

3. A camera control system according to Claim 1, wherein each said camera controller further comprises:

range displaying means for displaying information about an allowed range within which the pick-up direction of said video camera can be changed; and

setting means for setting the limits of said allowed range of the pick-up direction.

4. A camera control system according to Claim 1, wherein each said camera controller further comprises range displaying means for displaying information about an allowed range within which the pick-up direction of said video camera can be changed, said information being represented by a scroll bar.

5. A camera control system according to Claim 4, wherein said pick-up direction displaying means displays an index on said scroll bar to represent the current pick-up direction of said video camera.

6. A camera control system according to Claim 5, wherein said pick-up direction designating means designates a change in the pick-up direction of said video camera by moving said index.

7. A camera control means according to Claim 1, wherein

said each camera controller further comprises request issuing means for issuing a request that said camera controller be enabled to control said video camera;

said server further comprises queuing means for queuing requests issued by said plurality of camera controllers via said request issuing means; and

said transmission means transmits the information about the current pick-up direction of said video camera to said camera controllers which have issued said requests queued by said queuing means.

8. A camera control system according to Claim 1,

wherein:

said each camera controller further comprises image display means for displaying an image taken via said video camera; and

said transmission means transmits the information about the current pick-up direction of said video camera to said camera controllers to which said image taken via said video camera is supplied so that said image is displayed on said image display means of said camera controllers.

9. A camera control system according to Claim 1, wherein, in the case where the information designated by said pick-up direction designating means includes common information, said control means controls the direction of said camera in accordance with information which is the latest.

10. A camera control system according to Claim 1, wherein:

said each camera controller further comprises:

zooming range displaying means for displaying an allowed range within which the zooming ratio of said video camera can be changed;

zooming ratio designating means for designating

a change to be made in the zooming ratio of said video camera; and

zooming ratio displaying means for displaying the information about the current zooming ratio of said video camera;

said server further comprises zooming ratio control means for controlling the zooming ratio of said video camera in accordance with the designation of the change in the zooming ratio given by any camera controller; and

said transmission means further transmits the information about the current zooming ratio of said video camera, which has been controlled by said zooming ratio control means in accordance with said designation of the change in the zooming ratio, to camera controllers other than said camera controller which has issued the designation of the change in the zooming ratio of said video camera.

11. A camera controller having the capability of changing a pick-up direction of a video camera connected to said camera controller via a network, said camera controller comprising:

pick-up direction designating means for designating a change to be made in the pick-up direction of said video camera; and

pick-up direction displaying means for displaying the current pick-up direction of said video camera in accordance with received information corresponding to the current pick-up direction of said video camera, when no designation of the change in the pick-up direction of said video camera is issued by said pick-up direction designating means.

12. A camera controller according to Claim 11, further comprising range displaying means for displaying the information about an allowed range within which the pick-up direction of said video camera can be tilted and/or panned.

13. A camera controller according to Claim 11, further comprising:

range displaying means for displaying an allowed range within which the pick-up direction of said video camera can be changed; and

setting means for setting limits of said allowed range of the viewing direction.

14. A camera controller according to Claim 11, wherein said range displaying means displays said allowed range, within which the pick-up direction of said video

camera can be changed, by means of displaying a scroll bar.

15. A camera controller according to Claim 14, wherein said pick-up direction displaying means displays an index on said scroll bar to represent the current pick-up direction of said video camera.

16. A camera controller according to Claim 15, wherein said pick-up direction designating means designates a change in the pick-up direction of said video camera by moving said index.

17. A server for changing a pick-up direction of a video camera in accordance with a designation given by a camera controller connected to said server via a network, said server comprising:

control means for controlling the pick-up direction of said video camera in accordance with the designation of the change in the pick-up direction of said video camera given by said camera controller, said designation being received via the network; and

output means for outputting information about the current pick-up direction of said video camera, which is controlled by said control means in accordance with said

designation, not only to the camera controller which has issued said designation of said change in the pick-up direction of said video camera but also to other camera controllers couples to the network.

18. A server according to Claim 17, wherein said output means outputs information about the current pick-up direction of said video camera to said camera controller to which an image taken via said video camera is supplied.

19. A server according to Claim 18, wherein, in a case where information designated by said camera controller includes common information, said control means controls the direction of said camera in accordance with information which is the latest.

20. A method of controlling a video camera with a camera controller, said video camera being connected to said camera controller via a network, said camera controller having the capability of controlling the pick-up direction of said video camera, said method comprising the steps of:

displaying, at the camera controller, an allowed range within which the pick-up direction of said video

camera can be changed;

designating a change to be made in the pick-up direction of said video camera; and

displaying, at the camera controller, the current pick-up direction of said video camera in accordance with received information regarding the current pick-up direction of said video camera, when no designation of the change in the pick-up direction of said video camera is designated in said designating step.

21. A method of controlling a video camera with a camera controller, according to Claim 20, said method further comprising the step of displaying, at the camera controller, an allowed range within which the pick-up direction of said video camera is changed, wherein said allowed range is represented by a scroll bar.

22. A method of controlling a video camera with a camera controller, according to Claim 21, wherein said step of displaying the pick-up direction displays an index on said scroll bar to represent the current pick-up direction of said video camera.

23. A method of controlling a video camera with a camera controller, according to Claim 22, wherein said

step of designating a change in the pick-up direction designates a change in the pick-up direction of said video camera by moving said index.

24. A method of controlling a pick-up direction of a video camera having a server in accordance with an instruction given by a camera controller connected to said server via a network, said method comprising the steps of:

controlling the viewing direction of said video camera in accordance with a designation of a change in the pick-up direction of said video camera, said designation being given by the camera controller; and

outputting information about the current pick-up direction of said video camera, which is controlled in said controlling step, not only to the camera controller which has issued said designation of said change in the pick-up direction of said video camera, but also to other camera controllers coupled to the network.

25. A method of controlling the pick-up direction of a video camera having a server, according to Claim 24, wherein said information outputting step outputs information about the current pick-up direction of said video camera to said camera controller to which an image

taken via said video camera is supplied.

26. A method of controlling the pick-up direction of a video camera having a server, according to Claim 24, wherein, in a case where the information output by said outputting step includes common information, said control step controls the direction of said camera in accordance with information which is the latest.

27. A computer-readable storage medium for storing programs executed by a camera computer to control a viewing direction of a video camera connected to said camera computer via a network, said programs including:

a program for designating a change to be made in the pick-up direction of said video camera; and

a program for displaying the current pick-up direction of said video camera in accordance with received information about the current pick-up direction of said video camera, when no designation of the change in the pick-up direction of said video camera is provided by the disignating program.

28. A storage medium according to Claim 27, further storing a program for causing the camera computer to display information about an allowed range within which

the pick-up direction of said video camera can be changed, said displayed information being represented by a scroll bar.

29. A storage medium according to Claim 28, further storing a program for causing the camera computer to displaying an index on said scroll bar to represent the current pick-up direction of said video camera.

30. A storage medium according to Claim 29, further storing a program for causing the camera computer to designate a change in the pick-up direction of said video camera by moving said index.

31. A computer-readable storage medium for storing programs executed by a server computer to change a pick-up direction of a video camera in accordance with a designation given by any of a plurality of camera controllers connected to said server computer via a network, said programs including:

a program for controlling the pick-up direction of said video camera in accordance with a designation of a change in the pick-up direction of said video camera, said designation being received via said network; and

a program for outputting information about the

current pick-up direction of said video camera, which is controlled using said program for controlling, not only to the camera controller which has issued said designation of said change in the pick-up direction of said video camera, but also to other camera controllers coupled to said network.

32. A storage medium according to Claim 31, further storing a program for causing said sever computer to transmit information about the current pick-up direction of said video camera to the camera controller to which an image taken via said video camera is supplied.

33. A storage medium according to Claim 31, further storing a program for causing said server computer to control the direction of said camera in such a manner that, in a case where information designated by said program for controlling includes common information, the direction of said camera is controlled in accordance with information which is the latest.

34. A camera control system for controlling the pick-up direction of a video camera, comprising:

a camera controller including:

zooming ratio designating means for designating

a zooming ratio of said video camera;

pick-up direction designating means for designating a change in a pick-up direction of said video camera in units of predetermined movement amounts;

amount-of-change control means for controlling the amount of change in the pick-up direction in accordance with the zooming ratio designated by said zooming ratio designating means; and

a server including control means for moving the pick-up direction of said video camera in the direction designated by said pick-up direction designating means in said units of movement amounts controlled by said amount-of-change control means.

35. A camera control system according to Claim 34, wherein said camera controller includes storage means for storing data representing an amount of change in the pick-up direction depending on the zooming ratio, and wherein said amount-of-change control means controls said amount of change in the pick-up direction in accordance with said data stored in said storage means.

36. A camera control system according to Claim 34, wherein said amount-of-change control means reduces said amount of change with an increase in the zooming ratio

designated by said zooming ratio designating means.

37. A camera control system according to Claim 34, wherein:

said server further comprises detecting means for detecting an allowed amount of change in the pick-up direction of said video camera from the current pick-up direction of said video camera to an end position in a direction designated by said pick-up direction designating means; and

if the allowed amount of change detected by said detecting means is smaller than the unit mount of change controlled by said amount-of-change control means, said control means moves the pick-up direction of said video camera to said end position.

38. A camera control system according to Claim 34, wherein said camera controller further comprises:

range displaying means for displaying an allowed range within which the pick-up direction of said video camera can be changed, said range being represented by a scroll bar;

bar displaying means for displaying an index representing the zooming ratio of said video camera on said scroll bar; and

button displaying means for displaying a plurality of buttons indicating a plurality of directions in which the pick-up direction of the camera can be changed;

wherein said pick-up direction designating means determines the pick-up direction in response to an operation of activating any of said buttons.

39. A camera control system according to Claim 38, wherein said amount-of-change control means determines said amount of change in the pick-up direction in accordance with the location of a point, designated by a cursor, on the scroll bar displayed by said range displaying means,

40. A camera control system according to Claim 38, wherein said pick-up direction designating means designates a change in the pick-up direction by dragging the index displayed by said bar pick-up means, and wherein said amount-of-change control means defines said unit amount by an amount corresponding to the difference between the start point and end point of the dragging operation.

41. A camera controller having the capability of changing the pick-up direction of a video camera, said

camera controller comprising:

zooming ratio designating means for designating a zooming ratio of said video camera;

pick-up direction designating means for designating a change in the pick-up direction of said video camera in units of predetermined movement amounts; and

amount-of-change control means for controlling the amount of change in the pick-up direction in accordance with the zooming ratio designated by said zooming ratio designating means.

42. A camera controller according to Claim 41, further comprising storage means for storing data representing an amount of change in the pick-up direction depending on the zooming ratio, wherein said amount-of-change control means controls said amount of change in the pick-up direction in accordance with said data stored in said storage means.

43. A camera control system for changing the pick-up direction of a video camera comprising:

a camera controller including:

zooming ratio designating means for designating a zooming ratio of said video camera; and

pick-up direction designating means for

designating a change in the pick-up direction of said video camera in units of predetermined movement amounts; and

a server including:

amount-of-change control means for controlling an amount of change in the pick-up direction in accordance with the zooming ratio designated by said zooming ratio designating means; and

control means for moving the pick-up direction of said video camera in the direction designated by said pick-up direction designating means in said units of movement amounts controlled by said amount-of-change control means.

44. A camera control system according to Claim 43, wherein said server includes storage means for storing data representing an amount of change in the pick-up direction in relation to the zooming ratio, and wherein said amount-of-change control means controls said amount of change in the pick-up direction in accordance with said data stored in said storage means.

45. A server for changing a pick-up direction of a video camera in response to a command received from an extrnal source, said server comprising:

amount-of-change control means for controlling an amount of change in the pick-up direction in accordance with a zooming ratio received from the external source in predetermined movement units; and

control means for moving the pick-up direction of said video camera in the direction designated by said command received from the external source in said predetermined movement units controlled by said amount-of-change control means.

46. A server according to Claim 45, further comprising storage means for storing data representing an amount of change in the pick-up direction in relation to the zooming ratio, and, wherein said amount-of-change control means controls said amount of change in the pick-up direction in accordance with said data stored in said storage means.

47. A server according to Claim 45, further comprising detecting means for detecting an allowed amount of change in the pick-up direction of said video camera from the current pick-up direction of said video camera to an end position in a direction designated from the external source, and wherein, if the allowed amount of change detected by said detecting means is smaller

than the amount of change controlled by said amount-of-change control means, said control means moves the pick-up direction of said video camera to said end position.

48. A method of controlling a video camera with a camera controller which changes a pick-up direction of the video camera, said method comprising the steps of:

designating a zooming ratio of said video camera;

designating a change in the pick-up direction of said video camera in units of predetermined movement amounts; and

controlling an amount of change in the pick-up direction in accordance with the zooming ratio designated in said step of designating the zooming ratio.

49. A method of controlling a video camera with a camera controller, according to Claim 48, said method further comprising the step of storing data representing an amount of change in the pick-up direction in relation to the zooming ratio, wherein said controlling step controls said amount of change in the pick-up direction in accordance with said data stored in said storage step.

50. A method of controlling a video camera with a

server having which changes a pick-up direction of a video camera in response to a command received from an external source, said method comprising the steps of:

controlling an amount of change in the pick-up direction in accordance with the zooming ratio received from the external source; and

moving the pick-up direction of said video camera by the amount controlled in said controlling step.

51. A method of controlling a video camera with a server, according to Claim 50, further comprising the step of storing data representing an amount of change in the pick-up direction depending on the zooming ratio.

52. A method of controlling a video camera with a server, according to Claim 50, further comprising the step of detecting an allowed amount of change in the pick-up direction of said video camera from the current pick-up direction of said video camera to an end position in a direction designated from the external source, and wherein if the allowed amount of change detected in said detecting step is smaller than an amount of change controlled in said amount of change control step, said moving step moves the pick-up direction of said video camera to said end position.

53. A computer-readable storage medium for storing programs executed by a camera computer which changes a pick-up direction of a video camera, said programs including:

a program for designating a zooming ratio of said video camera;

a program for changing the pick-up direction of said video camera in units of a predetermined movement amount; and

a program for moving the pich-up direction in the pick-up direction in said units.

54. A storage medium according to Claim 53, further including a program for causing the camera computer to store data representing an amount of change in the pick-up direction in relation to the zooming ratio, and to control said movement in accordance with said stored data.

55. A computer-readable storage medium for storing programs executed by a server computer which changes a pick-up direction of a video camera in response to a command received from an external source, said programs including:

a program for controlling an amount of change in the

pick-up direction in relation to a zooming ratio of said video camera received from the external source; and

a program for moving the pick-up direction of said video camera in designated direction by the amount of change controlled by said program for controlling.

56. A storage medium according to Claim 55, further including a program for causing said server computer to store data representing an amount of change in the pick-up direction in relation to the zooming ratio, and to control the movement in accordance with said stored data.

57. A storage medium according to Claim 55, further including a program for causing said server computer to detect an allowed amount of change in the pick-up direction of said video camera from a current pick-up direction of said video camera to an end position in a direction received from the external source, wherein if the allowed amount of change detected is smaller than a predetermined amount, said program for moving moves the pick-up direction of said video camera to said end position.